

WHAT IS CLAIMED IS:

1. A pivot hinge assembly for pivotably supporting a linking column in a door opening around a pivot axis located near a jamb of a door frame defining the door opening, said linking column pivoting in linkage with a door plate supported in said door opening, said pivot hinge assembly comprising:

10       a pivot pin acting as a pivot axis for a linking column,  
      an elastic member urging said pivot pin downwards,  
      a pivot pin holder having a through hole for accommodating said elastic member and said pivot pin therein, said through hole having a lower section for supporting said pivot pin vertically slidably, and an upper section for accommodating said elastic member, and  
15       a closure for closing an upper end of said through hole, wherein said elastic member is arranged with its upper end abutting said closure and its lower end abutting an upper face of said pivot pin for urging said pivot pin  
20       downward into engagement with a dent provided in an upper end face of said linking column.

2. The pivot hinge assembly of claim 1, wherein said pivot pin has a body section, a flange provided at an upper end of the pin, and reduced diameter section having a diameter smaller than that of said body section in the lower portion of the pin, and wherein said reduced diameter section is

urged downwards by the elastic member into engagement with said dent.

3. The pivot hinge assembly of claim 1, wherein said lower  
5 section of said through hole in the pivot pin holder has an inner diameter slightly larger than a diameter of said pivot pin accommodated therein.

4. The pivot hinge assembly of claim 1, wherein said upper  
10 section of said through hole in the pivot pin holder has an inner diameter larger than an inner diameter of said lower section of the through hole.

5. A folding pivot door assembly having a pivot hinge  
15 assembly of claim 1 comprising:

a door plate pivotably supported in a door opening defined by a door frame,

an upper rail fixed on an underside of a header of said door frame,

20 a linking column having upper and lower arms integrally fixed at its upper and lower ends, respectively, in a cantilever fashion, said upper and lower arms pivotably connected to the upper and lower faces of the door plate in their free end portions, respectively, said linking  
25 column pivoting in linkage with the door plate,

upper and lower pivot hinge assemblies for pivotably supporting the linking column in the door opening around

a pivot axis located near a jamb of the door frame, and  
a guide member fixed to and extending upwardly from  
the upper face of the door plate, said guide member being  
slidably supported by said upper rail,

5        wherein said upper pivot hinge assembly further  
comprises:

a pivot pin acting as said pivot axis for the linking  
column,

an elastic member urging said pivot pin downwards,

10        a pivot pin holder having a through hole for  
accommodating said elastic member and said pivot pin  
therein, said through hole having a lower section for  
supporting said pivot pin vertically slidably, and an upper  
section for accommodating said elastic member, and

15        a closure for closing an upper end of said through hole,

wherein said elastic member is arranged with its upper  
end abutting said closure and its lower end abutting an  
upper face of said pivot pin for urging said pivot pin  
downward into engagement with a dent provided in an upper  
20        end face of said linking column.

6. The folding pivot door assembly of claim 5, wherein  
said closure is the header of a door frame.

25        7. The folding pivot door assembly of claim 5, wherein  
said closure is the upper rail.